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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|--------------------------|------------------|
| 10/694,355 | 10/28/2003 | Jiun-Rong Pai | 4006-272 | 2538 |
| 22429 | 7590 | 06/30/2005 | EXAMINER BLOUNT, ERIC | |
| LOWE HAUPTMAN GILMAN AND BERNER, LLP 1700 DIAGONAL ROAD SUITE 300 /310 ALEXANDRIA, VA 22314 | | | ART UNIT 2636 | PAPER NUMBER |

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|----------------------------|--|
| Office Action Summary | Application No. 10/694,355 | Applicant(s) PAI ET AL. | |
| | Examiner Eric M. Blount | Art Unit 2636 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>10282003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Oath/Declaration

1. The Oath is objected to because the full name of each inventor (family name and at least one given name together with any initial) has not been set forth.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Taiwan on June 10, 2003. It is noted, however, that applicant has not filed a certified copy of the patent application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 7-8, 13-14 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stahl et al [U.S. Patent No. 6,305,406 B1].

As for **claim 1**, Stahl discloses an apparatus for monitoring and preventing leakage of process cooling water in equipment, wherein a bellows is used to deliver the cooling water through the equipment (column 1, lines 19-21 and column 2, lines 24-35 and column 3, lines 18-24). The cooling pump P, which pumps fluid into the supply line reasonably meets the limitation of a bellows. The apparatus includes a tray under

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cooling coils wherein the tray comprises an anti-leak dish that can receive the leaking process cooling water and a shelter plate connecting to the anti-leak dish, wherein the shelter plate can block the process cooling water from sprinkling on components that may be damaged by fluid leak (column 3, lines 24-34 and 55-61). Stahl does not specifically disclose that the shelter plate (spray hood) is obliquely connected to the dish. However, it would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant that the spray hood could have been arranged on the tray in any manner that would prevent leaked fluid from damaging components within the equipment being cooled.

Regarding **claims 7 and 16-17**, Stahl teaches a shelter plate that may be made of a metal (column 3, lines 37-40). It would have been obvious to one of ordinary skill that any appropriate metal such as stainless steel could be used to construct the shelter plate and anti-leak dish.

As for **claim 8**, the anti-leak dish includes a sensor, which sends a signal while the process cooling water is leaking on the anti-leak dish (column 3, lines 55-65).

As for **claims 13 and 14**, the anti-leak dish includes a sensor that sends a signal while the process cooling water is leaking on the anti-leak dish (column 3, lines 55-65). The anti-leak dish is considered a receiving device.

5. Claims 2-3, 5-6, 9-12, 15, and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stahl et al [U.S. Patent No. 6,305,406 B1] in view of applicants admitted prior art NP-1566-TW.

As for **claims 2 and 3**, Stahl does not disclose that a metal bellows is used. However, it would have been obvious to one of ordinary skill in the art that any appropriate material could have been used for the bellows whether it is rubber, plastic, or metal. In applicants' admitted prior art, claims 4 and 5 (NP-1566-TW), shows that a tubal body used for delivering a cooling fluid may be metal. Likewise, claim 1 (NP-1566-TW) shows that protective tubing may cover tubing (bellows). It would have been obvious that the bellows of Stahl could have been modified to include a metal bellows with a protective covering.

As for **claims 5 and 6**, NP-1566-TW shows in claim 6 that the protective tubing may be heat shrinkable tubing or Teflon tubing.

Regarding **claim 9**, Stahl does not disclose a sensor that comprises two conductive lines, which are not connected normally, and form an electrical connection when they are contacted by water. However, these types of sensors were well known in the art at the time of the invention by the applicant and would have been an obvious choice to use in the anti-leak dish. NP-1566-TW shows this type of sensing in its fluid leakage monitoring apparatus. It is obvious that this sensing means could have been used to provide a low cost water detector in the invention of Stahl.

As for **claim 10**, Stahl does not specifically disclose a detector connected to the sensor for receiving a signal from the sensor and sending a warning signal. NP-1566 discloses a cooling system wherein a sensor is provided for detecting a leak and upon detection of the leak sends a signal to a detector for triggering a warning signal (claims 7 and 8). It would have been obvious to one of ordinary skill in the art at the time of the

invention by the applicant to modify the system taught by Stahl to include detector and warning means taught by NP-1566-TW because the modification would allow a equipment owner or user to recognize a leakage condition and take the necessary steps to correct the problem.

Regarding **claim 11**, the two inventions reasonably appear to meet the limitations of the claim as written. Please see the discussion of claims 1 and 8 above.

Regarding **claim 12**, the two inventions reasonably appear to meet the limitations of the claim as written. Please see the discussion of claims 3 and 4 above.

As for **claim 15**, the two inventions reasonably appear to meet the limitations of the claim as written. Please see the discussion of claims 1 and 13 above.

As for **claims 18 and 19**, the two inventions reasonably appear to meet the limitations of the claim as written. Please see the discussion of claims 9 and 10 above.

Conclusion

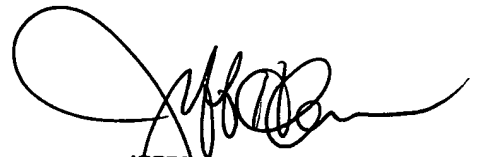
6. Applicants' have provided a copy of the claims of NP-1566-TW please include a complete copy and/or translation of the patent in response to this official action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M. Blount whose telephone number is (571) 272-2973. The examiner can normally be reached on 8:00 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass can be reached on (571) 272-2981. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eric M. Blount
Examiner
Art Unit 2636



JEFFERY HOFSSASS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600